

REPORT ON MACHINERY.

Port of *Newcastle*

No. in Survey held at *South Shields*
Reg. Book. *South Shields*
on the *S.S. Trevesa*

Received at London Office
Date, first Survey *4th May 99* Last Survey *Wed 25th Oct 1899*
(Number of Visits *13*)

Master *J. Quiller* Built at *South Shields* By whom built *J. Readhead & Sons* Tons { Gross *3477*
Engines made at *S. Shields* By whom made *J. Readhead & Sons* Net *2296*
Boilers made at *S. Shields* By whom made *J. Readhead & Sons* When built *1899*
Registered Horse Power _____ Owners *E. Hainy & Son* when made *1899*
Nom. Horse Power as per Section 28 *293* Is Refrigerating Machinery fitted *No* when made *1899*
Is Electric Light fitted *No* Port belonging to *St. Ives*

ENGINES, &c.—Description of Engines *Triplic Expansion* No. of Cylinders *3* No. of Cranks *3*
Dia. of Cylinders *24" 40" 65"* Length of Stroke *45"* Revs. per minute *60* Dia. of Screw shaft *as per rule 12" 12²*
Dia. of Tunnel shaft *as per rule 10.9* Dia. of Crank shaft journals *as per rule 11.5* Dia. of Crank pin *12 1/4* Lgth. of stern bush *4-4"*
Dia. of Crank pin *12 1/4* Size of Crank webs *8 1/2 x 16* Dia. of thrust shaft under collars *12 3/4* Dia. of screw *16-3"* Pitch of screw *15-0" 6 17-6"* No. of blades *4* State whether moveable *No* Total surface *71.58*
No. of Feed pumps *2* Diameter of ditto *3 1/2"* Stroke *24"* Can one be overhauled while the other is at work *Y*
No. of Bilge pumps *2* Diameter of ditto *4 3/8"* Stroke *24"* Can one be overhauled while the other is at work *Y*
No. of Donkey Engines *2* Sizes of Pumps *6x4x6" 13 1/2 x 9 x 13"* No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room *Two wing 3 1/2" two centre 3 1/2"* In Holds, &c. *Two in each hold 3 1/2" dia. one in after with 2 1/2" dia.*
No. of bilge injections *1* sizes *5 1/2"* Connected to condenser, to circulating pump *Y* Is a separate donkey suction fitted in Engine room & size *Y 3 1/2"*
Are all the bilge suction pipes fitted with roses *Y* Are the roses in Engine room always accessible *Y* Are the sluices on Engine room bulkheads always accessible *Y*
Are all connections with the sea direct on the skin of the ship *Y* Are they Valves or Cocks *Both*
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *Y* Are the discharge pipes above or below the deep water line *above*
Are they each fitted with a discharge valve always accessible on the plating of the vessel *Y* Are the blow off cocks fitted with a spigot and brass covering plate *Y*
What pipes are carried through the bunkers *None* How are they protected *—*
Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times *Y*
Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges *Y*
When were stern tube, propeller, screw shaft, and all connections examined in dry dock *Nov* Is the screw shaft tunnel watertight *Y*
Is it fitted with a watertight door *Y* worked from *Upper platform*

BOILERS, &c.— (Letter for record *N*) Total Heating Surface of Boilers *4557 1/2* Is forced draft fitted *No*
No. and Description of Boilers *Two cylindrical single ends* Working Pressure *160* Tested by hydraulic pressure to *320*
Date of test *9/9/99* Can each boiler be worked separately *Y* Area of fire grate in each boiler *52 1/2* No. and Description of safety valves to each boiler *Two spring valves* Area of each valve *7.07 sq"* Pressure to which they are adjusted *165 lbs* Are they fitted with easing gear *Y*
Smallest distance between boilers or uptakes and bunkers or woodwork *12"* Mean dia. of boilers *15.7* Length *10-4* Material of shell plates *S*
Thickness *1 3/16* Range of tensile strength *27-32* Are they welded or flanged *None* Descrip. of riveting: cir. seams *Lap double long. seams d.b. with*
Diameter of rivet holes in long. seams *1 3/8"* Pitch of rivets *8 1/16* Lap of plates or width of butt straps *1-9 1/2"*
Per centages of strength of longitudinal joint *84.5* Working pressure of shell by rules *160* Size of manhole in shell *12 x 16"*
Size of compensating ring *6 x 1 3/16"* No. and Description of Furnaces in each boiler *3 Purves* Material *S* Outside diameter *3-9 1/4"*
Length of plain part *top 3 1/2" bottom 3 1/2"* Thickness of plates *3 1/2"* Description of longitudinal joint *Welded* No. of strengthening rings *—*
Working pressure of furnace by the rules *161* Combustion chamber plates: Material *S* Thickness: Sides *5/8* Back *5/8* Top *5/8* Bottom *2/8*
Pitch of stays to ditto: Sides *8 1/2* Back *9* Top *9* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *167*
Material of stays *Iron* Diameter at smallest part *1 5/8"* Area supported by each stay *76 1/2 sq"* Working pressure by rules *195* End plates in steam space: Material *S* Thickness *1 3/2* Pitch of stays *17 5/8"* How are stays secured *d.n.w.* Working pressure by rules *161* Material of stays *S*
Diameter at smallest part *5.05"* Area supported by each stay *304 sq"* Working pressure by rules *180* Material of Front plates at bottom *S*
Thickness *3/4* Material of Lower back plate *S* Thickness *13/16* Greatest pitch of stays *11 1/2"* Working pressure of plate by rules *180*
Diameter of tubes *3 1/2"* Pitch of tubes *4 3/4* Material of tube plates *S* Thickness: Front *3/4* Back *3/4* Mean pitch of stays *9 1/2"*
Pitch across wide water spaces *14"* Working pressures by rules *182* Girders to Chamber tops: Material *S* Depth and thickness of girder at centre *8-1 1/2"* Length as per rule *28"* Distance apart *8 1/2"* Number and pitch of Stays in each *2, 5"*
Working pressure by rules *200* Superheater or Steam chest; how connected to boiler *Y* Can the superheater be shut off and the boiler worked separately *Y*
Diameter *Y* Length *Y* Thickness of shell plates *Y* Material *Y* Description of longitudinal joint *Y* Diam. of rivet holes *Y* Pitch of rivets *Y* Working pressure of shell by rules *Y* Diameter of flue *Y* Material of flue plates *Y* Thickness *Y*
If stiffened with rings *Y* Distance between rings *Y* Working pressure by rules *Y* End plates: Thickness *Y* How stayed *Y*
Working pressure of end plates *Y* Area of safety valves to superheater *Y* Are they fitted with casing gear *Y*



